REMARKS

Claims 1 to 19 are pending in the application.

Rejection under 35 U.S.C. 102

Claims 1-4 stand rejected under 35 U.S.C. 102(b) as being anticipated by *Yuzawa et al. (US 4,274,385)*.

The present invention is directed to a camshaft adjuster. Such adjusters are required in order to move the camshaft into a predetermined start position when starting the engine. For example, it may happen that the motor is abruptly shut down while the camshaft is in a displaced camshaft position, for example, when accidentally releasing the clutch at high rpm (revolutions per minute) when driving away from a stop at a traffic light. When this occurs, the camshaft adjustment has taken place at high rpm and the camshaft adjuster does not have sufficient time to reach the start position that is required for low rpm. The engine is thus turned of with the camshaft being in the displaced high rpm position. It is then difficult to start the engine. In order to move the camshaft into the required starting position, a camshaft adjuster is provided.

The present invention claims in revised claim 1 an actuating device that comprises a solenoid valve having a valve part configured as a pump for conveying a pressure medium. The solenoid valve has at least one pressure chamber containing pressure medium. The pressure medium is pressurized in the pressure chamber and supplied to at least one work connector of the solenoid valve for securing a camshaft of a motor vehicle engine in a start position by moving the camshaft into the start position by positive control. The solenoid valve is configured to convey the pressure medium by vacuum into the at least one pressure chamber.

Accordingly, the present invention claims that the pressure medium is pressurized for a particular purpose in the pressure chamber, i.e., the pressurized medium is conveyed to the work connector of the solenoid valve in order to adjust the camshaft. The solenoid valve is configured such that the pressure medium is conveyed by vacuum into the pressure chamber.

The prior art device of *Yuzawa et al.* does not show a camshaft adjuster. The device disclosed in *Yuzawa et al.* relates to an exhaust gas circulating device for internal

combustion engines. The problem of adjusting a camshaft, in particular, of moving a camshaft into the correct start position, is not addressed in this reference. A person concerned with improving a camshaft adjuster would not look to an exhaust gas recirculating system.

The prior art reference only shows that it is known to generate a vacuum for conveying a medium (air). The prior art does not show that such a vacuum conveying action is used in connection with a camshaft adjusting device with which the camshaft is moved by positive control into a start position.

Moreover, the device of *Yuzawa et al.* only discloses that interacting valve elements 154, 172 are opened and closed as a function of the vacuum force acting on the diaphragm and the magnetic field created by the solenoid coil in order to allow or interrupt flow of atmospheric air depending on the engine operation (see col. 13, line 23, to col. 14, line 39). There is no pressure medium that is being pressurized and supplied to a work connector of the solenoid in order to perform work, i.e., adjust the camshaft.

In particular, claim 2 is not anticipated. Claim 2 defines the solenoid valve as having a piston and a pressure element delimiting the at least one pressure chamber. Moreover, the piston moves the pressure element for pressurizing the pressure medium in the at least one pressure chamber when the solenoid is supplied with current.

The prior art plunger 158 when excited simply causes the valve element 172 to move against the valve element 152 to block communication between atmospheric chamber 120 and the bore 148 in the core rod 146. No pressurization of a pressure medium in the pressure chamber occurs. Only flow of atmospheric air into the control valve assembly 50 is stopped.

Claims 1 to 4 are therefore not anticipated by the cited reference.

Rejection under 35 U.S.C. 103

Claims 10 and 12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Yuzawa et al.*

Claim 10 and 12 are believed to be allowable as dependent claims of claim 1.

New Claim 20

Claim 20 defines that the solenoid valve has a piston that, when the solenoid valve

is excited, pressurizes the pressure medium and supplies the pressure medium to the at least one work connector. The piston returns into a starting position, when the solenoid is switched off, and creates a vacuum in the at least one pressure chamber causing the pressure medium to be conveyed from a supply bore by vacuum into the at least one pressure chamber.

The prior art reference *Yuzawa et al.* does not disclose that the piston 158 when the solenoid is actuated pressurizes the pressure medium and supplies the pressure medium to a work connector. The prior art reference *Yuzawa et al.* also does not disclose that the piston, when the solenoid is switched off, is returned into a starting position and creates a vacuum in the pressure chamber. In the prior art, the plunger 158 when excited simply causes the valve element 172 to move against the valve element 152 to block communication between atmospheric chamber 120 and the bore 148 in the core rod 146. No pressurization of the pressure medium in the pressure chamber occurs. Only flow of atmospheric air into the control valve assembly 50 is interrupted.

Claim 20 is therefore neither anticipated not obvious in view of the cited prior art reference *Yuzawa et al.*

ALLOWABLE SUBJECT MATTER

Claims 5-9, 11, 13-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 5 has been amended to include the features of claims 1, 2, and 4 from which it originally depended and should thus be allowable.

Claim 7 has been amended by incorporating therein the features of claim 1 and should thus be allowable.

Claim 13 has been amended by incorporating therein the features of claims 1 and 10 from which it originally depended and should thus be allowable.

CONCLUSION

In view of the foregoing, it is submitted that this application is now in condition for allowance and such allowance is respectfully solicited.

The application now contains four independent claims. Please charge the fee for

one independent claim in access of three to Patent and Trademark Office **deposit account 50-1199.**

Should the Examiner have any further objections or suggestions, the undersigned would appreciate a phone call or **e-mail** from the examiner to discuss appropriate amendments to place the application into condition for allowance.

Authorization is herewith given to charge any fees or any shortages in any fees required during prosecution of this application and not paid by other means to Patent and Trademark Office deposit account 50-1199.

Respectfully submitted on April 28, 2005,

Gudrun E. Huckett

Ms. Gudrun E. Huckett, Ph.D.
Patent Agent, Registration No. 35,747
Lönsstr. 53
42289 Wuppertal
GERMANY
Telephone: +49-202-257-0371
Facsimile: +49-202-257-0372
gudrun.draudt@t-online.de

GEH
Encl.: time extension petition (1 sheet)